# Polar Bear Viewing Information



#### Polar Bear Viewing Guidelines on the Arctic National Wildlife Refuge, Alaska

Arctic National Wildlife Refuge (Refuge) lands and waters (see map, Appendix 5) provide habitat important to polar bears for denning, feeding, resting, and seasonal movements. With increasing numbers of people interested in viewing polar bears in Alaska, the U.S. Fish and Wildlife Service (FWS) has developed Polar Bear Viewing Guidelines (Guidelines) for visitors to the Refuge who are seeking opportunities to observe polar bears. These Guidelines are intended to insure that polar bears are not disturbed, so that opportunities for the public to enjoy, observe, and photograph these bears in the wild can continue. Whether viewing polar bears independently, or with a guide, it is each individual's responsibility to insure that their activities around polar bears are safe and remain lawful. **These guidelines will help you understand your legal requirements and your stewardship obligations while viewing polar bears.** If you are planning activities other than polar bear viewing whereby you may *unintentionally* encounter polar bears, please contact the Refuge for specific safety guidance.

#### What does "Protected Status" of polar bears mean?

Polar bears are protected wherever they occur in the United States under both the Marine Mammal Protection Act of 1972 (MMPA) and the Endangered Species Act of 1973 (ESA). The recent listing of polar bears as threatened under the ESA does not alter the existing MMPA requirements. Both laws prohibit *take* of polar bears, with few exceptions.

Under the MMPA, *take* is defined as "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture or kill" any marine mammal, including polar bears. *Harassment* is divided into two categories: 1) <u>Level A harassment</u>, which is defined as "any act of pursuit, torment, or annoyance which has the *potential to injure* a marine mammal or marine mammal stock in the wild;" and 2) <u>Level B harassment</u>, which is defined as "any act of pursuit, torment, or annoyance which has the *potential to disturb* a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering."

In general, disturbing polar bears is illegal. Any change in a polar bear's natural behavior as a result of your presence (including any attempt to feed a polar bear) can be considered an illegal disturbance. A few exceptions exist within the MMPA, such as permitted commercial and educational photography (for Level B harassment only), permitted scientific research, subsistence purposes, authorized harassment (deterrence) by Federal agents or their appointees for public safety, and defense of life

#### What general activities are allowed near polar bears?

General recreational viewing. It is legal to view and photograph polar bears for recreational purposes; it is illegal to disturb them. If you encounter polar bears and your viewing activities are conducted in a manner that does not result in a change to their natural behavior, the viewing activity is legal. Any change in the animal's natural behavior as a result of your presence can be considered harassment and, unless specifically authorized, is not legal, whether your viewing is commercially-guided or independent.

*Commercially-led viewing*. You are not required to use a guide to view polar bears on Refuge lands. However, encounters with polar bears can be dangerous, and using a guide for viewing polar bears on

Refuge lands and waters can provide local knowledge which may benefit your experience and safety. If you wish to view polar bears with a guide, be sure that any guide service you use has a special use permit for conducting commercial activities on Refuge lands or waters.

Business owners wishing to conduct guided polar bear viewing on Refuge lands and waters in 2010 must apply for a permit before April 15, 2010. Those who wish to operate in winter and spring of 2011 should apply October 1 to November 30, 2010. Permits must be renewed annually. Additional information may be obtained from:

U.S. Fish and Wildlife Service
Arctic National Wildlife Refuge
101 12<sup>th</sup> Avenue, Room 236
Fairbanks, AK 99701
Toll Free Tel. 1-800-362-4546
Contact: Jennifer Reed (ext. 3)

Web site: http://arctic.fws.gov/permits.htm

Commercial or educational photography. Photographing and filming polar bears for educational or

commercial purposes is allowed provided all required permits are in place in advance of the activity. If you intend to conduct this activity, please contact the Refuge (contact information above) well in advance (at least 45 days) to discuss whether you will need a Special Use Permit for commercial operations issued by the Refuge. In addition, when photography or filming has the *potential to disturb* polar bears, a photography permit issued by the FWS Division of Management Authority (DMA) is required. Please contact DMA (contact information below) to discuss whether your activities will require a photography permit. You should allow for a minimum of three months for DMA to process your permit application. If photography or filming can be done in a way that the animals remain unaware of the photographer, then DMA will likely conclude that a photography permit for Level B harassment will not be required. Permit information can be obtained from:

U.S. Fish and Wildlife Service Division of Management Authority 4401 W. Fairfax Drive, Room 212 Arlington, Virginia 22203 Toll Free Tel. 1-800-358-2104 Contact: Monica Farris (ext. 2378)

In addition to Federal permits, you may also be required to obtain a permit for commercial photography and filming on City of Kaktovik property (City of Kaktovik Ordinance No. 10-01). Permit information for this activity can be obtained from:

City of Kaktovik Anne Tikluk, Mayor P.O. Box 27 Kaktovik, AK 99747 907-640-6313

#### When and where can I see polar bears?

Polar bear distribution in Alaska. Polar bears can be found in the Bering, Chukchi, and Beaufort seas and the adjacent coastline during any time of the year, including the northern portions of the Arctic Refuge. Generally, polar bears are distributed in association with ice-covered marine waters during most of the year; they use the ice as a platform for seasonal movements, hunting, feeding, resting, and denning. Polar bears may use terrestrial habitats of the Arctic Refuge to rest, travel, or feed between July and October when sea ice recedes from the coast; and between October and April to travel or den. On land, polar bears are most likely to be encountered within about 25 miles of the coastline; sightings further inland are rare but do occur.

*Viewing opportunities*. Public lands and waters along Alaska's northern and northwestern coast are remote and their access usually requires careful (expedition-style) planning. There is no guarantee that polar bears will be present when you seek to view them since their distribution and use of coastal habitat varies.

Please be aware that the Arctic Refuge encompasses the traditional homeland of the Inupiat people of Kaktovik and perpetuates opportunities for their continuing traditional subsistence uses. The village of Kaktovik is located on Barter Island which serves as the primary commercial access point for visitors traveling to the northeastern region of the Arctic Slope and the Beaufort Sea coast. This coastal community consists of about 300 residents, primarily Alaska Natives, and has limited facilities available for visitors. Fall is an important time for subsistence whaling in Kaktovik, which coincides with the occurrence of polar bears in high densities along the Beaufort Sea coast. If you choose to visit Kaktovik, be as self sufficient as possible by educating yourself about local resources before your arrival (Appendix 4). Seek guidance from local residents about how to least impact the community's routine subsistence activities (Appendix 6). Be respectful of local community activities and the rights of local citizens to privacy while you visit their community.

Nearly all lands in the vicinity of the Kaktovik Townsite are either privately owned by the Kaktovik Inupiat Corporation, or privately-owned parcels, or are military reserve lands. Entry onto non-Refuge lands is only allowed with prior approval from the appropriate landowner. It is the visitor's responsibility to learn about land status and receive prior approval before entering non-Refuge lands (Appendices 1, 5). Private lands probably will not be marked with signs, but maps depicting the Refuge boundary and private lands within the Refuge boundary are available at: <a href="http://arctic.fws.gov/nonrefugelands.htm">http://arctic.fws.gov/nonrefugelands.htm</a>. Please be respectful of these private land rights.

#### How should I behave around polar bears?

The continued opportunity for recreational polar bear viewing depends on proper human conduct which avoids bear-human interactions.

Safety. Anyone engaged in polar bear viewing is encouraged to become familiar with bear safety information prior to conducting such activities. Always remember that polar bears are wild animals: even though individual bears can demonstrate tolerance for human activity, they can respond dangerously at any given time. Polar bears are naturally curious and potentially predatory. These characteristics are factors that increase risk to humans. Polar bears spending extended periods of time on land without an adequate food source may be nutritionally stressed and, therefore, may be more dangerous. Your choice to be in proximity to these animals is potentially a hazardous activity.

Appendix 2 provides information regarding safety around polar bears. We recommend that you or your guide have a polar bear safety plan in place that addresses issues such as what communication/emergency procedures will be used if unforeseen circumstances arise or an injury occurs. All members of a viewing party should be familiar with recommended viewing practices described herein and your group's safety plan before embarking to view polar bears. We also recommend that the DVD "*Polar Bears: a Guide to Safety*" is viewed by everyone planning to view polar bears prior to embarking. For information about how to obtain this DVD please contact FWS staff listed in Appendix 1.

Laws and ordinances. People engaged in polar bear viewing are responsible for ensuring that their activities do not disturb polar bears. Groups (whether lead by commercial guides or independent visitors) should be familiar with polar bear habitat use and behavior, as well as Federal conservation laws and recommendations applicable to polar bears (described herein), and site-specific rules. For example, visitors viewing bears on private or other non-Refuge lands around Kaktovik may need to follow local governmental or private land owner requirements (available from Kaktovik contacts, Appendix 1), such as being accompanied by a local guide to view bears.

Distance. Insure that your actions do not cause a change in a polar bear's behavior. The best way to accomplish this is to avoid close encounters. Polar bears must be allowed to continue to do, unhindered, whatever they were doing before your arrival. The closer you are, the more likely you are to cause disturbance or have interactions with bears. Be aware that the distance at which bears tolerate humans varies by individual bear, and may also be affected by other factors such as type of conveyance (boat, ATV, truck, on foot), rate of speed of approach or departure, and presence or absence of noise, light, scents or other sensory stimuli. A distance that initially seems fine may suddenly become too close for the bear's comfort when additional stimuli (like an abrupt noise or the arrival of another bear) are added to the viewing scenario. Respect bears' "personal space" – insure that you don't crowd or displace bears by self-monitoring your distance from the bear.

Viewing location and method. Viewing polar bears on foot is not recommended. Viewing bears from fixed locations (observation posts) at consistent times reduces overall stress to polar bears by making human behavior more predictable, and is appropriate for situations where guides, visitors, or residents repeatedly visit a viewing area, such as along barrier islands or at whale carcass remains near Kaktovik. Stay with your vehicle or boat to make the group more predictable to the bears. Polar bears have a keen sense of smell; therefore, observation posts located downwind from where bears occur would be most effective in avoiding their disturbance. Choosing a location for your observation post that is in the open will allow bears to avoid you, and avoid surprise encounters. Aerial polar bear viewing involving low level flights or circling causing disturbance is illegal.

*Time of day*. Polar bears are typically most active during dusk, night, or dawn hours when visibility may be limited. Be aware of your surroundings, especially during limited visibility. Use extra caution while viewing in low-light and consider viewing only during daylight hours for increased safety.

Familiarity with bear behavior. Polar bears that are foraging, nursing, swimming, playing, resting, or traveling in an uninterrupted manner are probably behaving naturally. Be aware that since animals' reactions will vary, all bears in an area must be carefully observed at all times during viewing in order to insure they continue to behave naturally. Be aware that viewing family groups (mothers with cubs) requires special consideration because of: 1) the highly protective nature of the mother; 2) the curious behavior of cubs (which may cause a defensive reaction by the mother when cubs approach humans); and 3) the increased nutritional demands of growing bears. Learn to **recognize and respect wildlife alarm signals**. Polar bears that stop what they are doing to turn their head or sniff the air in your direction may have become aware of your presence. Visitors should leave the vicinity if you see signs of disturbance. Signs of disturbance include:

• Behavioral reactions such as a pursed lip, lowered head with ears flat back or directly forward, looking

- directly at you;
- vocalizations such as huffing, hissing, growling, or chomping;
- Rapid changes in direction or speed of movement (running away from, or toward you).

Attractants. It is illegal to attempt to attract polar bears through the use of food, scents, or other attractants. When bears learn to associate humans or human activities with food, they have become "food-conditioned." Bears can become food-conditioned quite quickly, even after one instance of obtaining human-related food or garbage. Food-conditioned bears are more likely to negatively interact with people, as they move through their home ranges and interact with other people, whether it is in hunting and fishing camps; or near cars, trucks, and snow machines; or at private cabins, etc. This behavior is often independent of where the food-conditioning first occurred. Allowing a bear to obtain human-associated food may increase the risk of the bear injuring people and may eventually lead to the bear's death.

*Viewing practices.* The following actions will help ensure that bears remain undisturbed during viewing:

- Always conduct your viewing in a manner that does not attract bears or require you to defend yourself or your group;
- Before viewing, plan on how your group will respond to encounters in which bears exhibit curious, nervous, threatened, or aggressive behavior, should they unexpectedly occur;
- Approach and depart from viewing areas using the same route, proceeding slowly, and using minimal lights and noise;
- Do not attempt to herd, follow, or chase a polar bear;
- During viewing, all members of group should be asked to remain vigilant for bears at all times and not simply rely on their guides;
- Stay as a group; do not leave (or lean out of) boats or vehicles while in close proximity to bears;
- Avoid noisy conversation and movements during viewing;
- Avoid carrying food with you or smelling like food during viewing;
- Do not mimic a bear's vocalizations to attract it closer or in response to an aggressive bear;
- Do not attempt to touch or feed a polar bear to attract it closer;
- Do not separate a mother from her cubs; and
- Do not allow a bear to make physical contact with you or your boat or vehicle. Bears that are allowed to make contact with people without being scared off may lose their natural sense of fear that could lead to increased aggression during future encounters. If contact occurs, make noise to scare the bear off, e.g., by revving engine or sounding a horn; use the minimum amount of noise or action necessary to stop the bear's behavior. If contact occurs repeatedly, move to a different location or leave the area, then report the incident to one of the FWS contacts identified in Appendix 1.

#### What else should I take into consideration?

Swimming bears. Polar bears are marine mammals and ocean waters are a significant part of their habitat. It is common to see bears in water. It is illegal to restrict movements of swimming bears.

- If viewing from a boat, do not block the path in which the bear is travelling. If the bear is passing, put the engine in neutral to allow the bear to pass;
- Do not approach, encircle, or trap a swimming bear between boats; do not pursue a swimming bear:
- Do not separate a swimming mother from her cubs; and
- If approached by a swimming bear, move the boat away to minimize interactions; if the bear persists, leave the area while avoiding sudden use of the throttle.

Denning bears. Pregnant females spend October to late March or April in winter dens. On land, these maternal dens can be located in snow drifts that form along coastal bluffs and river drainages. Temporary shelter dens dug into snow are also used by resting polar bears and may be encountered throughout the year. Because of the high potential for maternal den disturbance and risk of den abandonment and cub death, viewing of polar bears within maternal denning habitat is not recommended. If you cannot avoid travelling in areas of potential denning:

- Travel away from the edge of bluffs and avoid crossing large snow drifts formed along bluffs;
- Be aware of bear signs such as tracks and holes in snowdrifts; and
- If you find yourself near a den, immediately retreat to a distance of at least one mile.

Resting, sick, injured, or dead bears. It is not uncommon for bears to rest without moving for days after completing long-distance swims; it is illegal to disturb them. Stay away from abandoned or sick wildlife and report such incidents to FWS at 1-800-362-5148. Depending on the situation, you may be asked to voluntarily provide information or collect samples from a dead bear (Appendix 3).

Thank you for working with the U.S. Fish and Wildlife Service to conserve polar bears and their habitat for the benefit and enjoyment of today's and future generations.

#### Appendix 1. Contacts for Additional Information on Laws, Regulations, and Resources

U.S. Fish and Wildlife Service Arctic National Wildlife Refuge Jennifer Reed, Visitor Services Coordinator 101 12<sup>th</sup> Avenue, Room 236 Fairbanks, AK 99701 Tel. 1-800-362-4546

U.S. Fish and Wildlife Service Marine Mammals Management Susi Miller, Polar Bear Biologist Craig Perham, Polar Bear Biologist 1011 E. Tudor Road MS 341 Anchorage, AK 99503 1-800-362-5148

Native Village of Kaktovik Fenton Rexford, Tribal Administrator P.O. Box 130 Kaktovik, AK 99747 907-640-2042

Kaktovik Inupiat Corporation Nathan Gordon, President P.O. Box 73 4089 Hula Hula Avenue Kaktovik, AK 99747 907-640-6120

City of Kaktovik Anne Tikluk, Mayor P.O. Box 27 Kaktovik, AK 99747 907-640-6313

#### Appendix 2. Polar Bears and Humans: Safety Guidelines Fact Sheet





#### U.S. Fish & Wildlife Service

### Polar Bears and Humans Safety Guidelines

Polar bear density in Alaska is highest during fall months when polar bears aggregate along the coastline. Due to changing ice conditions the U.S. Fish and Wildlife Service (FWS) anticipates that polar bear use of the coast will increase during open-water seasons (June through October). During this time many villagers engage in subsistence activities, and more people are engaging in polar bear viewing opportunities. Increasing numbers of visitors to Barrow and Kaktovik to view polar bears increase potential interactions between humans and polar bears. Polar bears are naturally curious and predatory which are factors that increase risk to humans.

The purpose of these guidelines is to minimize polar bear-human interactions and maximize the safety of both humans and polar bears, so each can continue to live safely in the Arctic environment.

#### FEDERAL LAW REGARDING POLAR BEAR-HUMAN INTERACTIONS

Polar bears are protected under the Marine Mammal Protection Act (MMPA) which prohibits take of any marine mammal.

Take is defined under the MMPA as: "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal." This includes feeding or attempting to feed a marine mammal in the wild.

Level A Harassment is: any act of pursuit, torment, or annoyance which has the potential to injure a polar bear.

Level B Harassment is defined as: any act of pursuit, torment, or annoyance which has the potential to disturb a polar bear by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.

This means that any change in a polar bear's natural behavior that is a result of your presence in proximity to the animal can be considered level B harassment, and is unlawful.



A mother protecting her cubs may display defensive behavior by huffing or snapping her jaws.

#### Some exceptions are:

- Take for subsistence purposes, as long as take is not wasteful. The hunter is required to have the hide and skull tagged within 30 days. Harvest taggers are located in coastal villages to help.
- Authorized harassment of bears (deterrence) by government officials (i.e. North Slope Borough Polar Bear Patrol) is permissible as long as it is done in a humane manner and is for the welfare of the bear, the public, or non-lethal removal of nuisance animals that pose a risk to public safety.
- Defense of life take is only permissible if such taking is imminently necessary in self defense or to save the life of a person in immediate danger, and such taking is reported to FWS within 48 hours. Public officials have the authority to use lethal methods to protect the public from polar bears, and may do so when all reasonable steps to avoid killing the bear(s) have been taken.
- Scientific research such as polar bear population surveys, ecology studies etc. can be authorized.

Photographing polar bears in the wild is permissible if no take occurs. If such activity is for educational or commercial purposes and could result in Level B harassment (disturbance), a permit is required.

Polar bears are also listed as a "threatened" species under the Endangered Species Act. This designation does not alter the definitions or exceptions of take outlined above under the MMPA.

#### GUIDELINES FOR LIVING IN POLAR BEAR COUNTRY

Most polar bears avoid people and have historically inflicted few human injuries and fatalities. However, the combination of curious and occasional sudden aggressive behavior creates the potential for human injury. In addition, polar bears spending extended periods of time on land without an adequate food source may be nutritionally stressed animals and potentially more dangerous.

In general, polar bears will react to humans by avoiding them, exhibiting curious behavior, treating them as other bears, or attempting to prey on them. The closer that humans are to polar bears, the more dangerous the situation because of the increased likelihood that the polar bear(s) will feel threatened. This could result in an attack. Unprovoked predatory attacks on humans are rare but do occur. The following guidelines may help reduce the risk associated with living in polar bear country.

#### Remain undetected

The best way to avoid detection by a polar bear is to be alert and detect the animal before it detects you. Be particularly alert in areas where bears are likely to occur: near open water leads, at whale or other marine mammal carcass sites, along coastal and river bluffs, or in the vicinity of fresh tracks.

Avoid traveling alone;

#### Appendix 2, continued



Sub-adults may display curious behavior: moving head around to catch scents, ears forward, stopping frequently.

- When in coastal areas, remain vigilant and be aware of your surroundings;
- Stay down-wind from known polar bear aggregation sites to avoid detection.

#### Avoid close interactions

Viewing animals should be accomplished without the animal's awareness of your presence. Little information is available regarding what constitutes a safe viewing distance. Polar bears are individualistic and react differently to both noise and human presence. A general rule of thumb is that the closer you are to the animal, the more likely you are to disturb it.

- Use binoculars and high powered scopes to avoid approaching too closely;
- Be aware that when on land bears typically rest during day and become more active during dusk, night, or dawn hours.

Avoid pursuing polar bears Harassment or pursuit of polar bears is prohibited by law.

- Never attempt to herd, chase, or separate groups of polar bears;
- Using motorized vehicles, including boats, to view bears should be avoided if it results in unnatural behavior by bears.

#### Minimize attractants

Polar bears will investigate anything out of the ordinary as a possible food item. The presence of attractants are likely to increase the chances of having close bear-human interactions. If a bear learns to associate food with humans, it is likely to attempt obtaining food from humans in the future. A polar bear that receives a food reward is very likely to return.

- Do not let bears associate food with humans;
- Maintain a clean camp or residence; remove attractants such as food, garbage, animal carcasses, sewage, gray water, anti-freeze, or petroleum products;
- Store food or attractants in bearresistant containers or locations;
- Avoid carrying food or items with strong odors when traveling in bear country.

#### Be Aware of Bear Behavior

Ensure that your actions do not cause a change in behavior of a polar bear. Since individual animal's reactions will vary, carefully observe all animals and leave the vicinity if you see signs of disturbance. Polar bears that stop what they are doing to turn their head or sniff the air in your direction may have become aware of your presence. These animals may exhibit curious, threatened, or predatory behavior.

 Curious polar bears typically move slowly, stopping frequently to sniff the air, moving their heads around to catch a scent, or hold their heads high with ears forward.

- A threatened or agitated polar bear may huff, snap its jaws together, stare at you (or object of threat) and lower its head to below shoulder level, pressing its ears back and swaying from side to side. These are signals for immediate withdrawal. If ignored, the polar bear may charge. Threatened animals may also retreat, withdraw, or run away.
- Predatory behavior may involve a polar bear that is sneaking or crawling up on an object it considers prey. Another form of predatory behavior is a bear that is approaching in a straight line at a constant speed without exhibiting curious or threatened behavior. This behavior is indicative of a bear about to attack.

### WHAT TO DO IF YOU HAVE A CLOSE ENCOUNTER WITH A POLAR BEAR

If a polar bear detects and approaches you, get out of the way if you are in the bear's path, or between a mother and her cubs. If the animal continues to approach and you are in a vehicle, leave the area. If no vehicle is available, slowly move to a safe shelter. If no safe shelter is available, do not run; stand your ground. Gather people together in a group and/or hold a jacket over your head to look bigger. If the bear continues to approach, shout or make noise to deter the bear.

If a polar bear attacks in a predatory manner and no safe shelter is available, defend yourself. If the attack is by a female defending her cubs, remove yourself as a threat to the cubs; fight back if the attack turns predatory.

The future of polar bears is uncertain due to the combination of climate change effects and human-caused mortality. We encourage everyone to seek non-lethal methods of avoiding bear-human conflicts. This may help ensure polar bears are here in the future.

U.S. Fish & Wildlife Service 1 800/344 WILD http://www.fws.gov

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For more information please contact: Craig Perham or Susanne Miller 1 800/362 5148 Craig\_Perham@fws.gov Susanne\_Miller@fws.gov U.S. Fish & Wildlife Service Marine Mammals Management Office 1011 East Tudor Road Anchorage, AK 99503

Visit the Marine Mammals home page: http://alaska.fws.gov/polarbear

#### Appendix 3. If You Find a Dead Bear Fact Sheet





The U.S. Fish and Wildlife Service (FWS) is the federal agency responsible for monitoring polar bear populations in the United States. As part of this effort, FWS biologists are working to obtain information on the condition and health of these animals. Recovering the carcass of a polar bear that has died recently of natural causes provides an important opportunity to aid in monitoring the health of polar bear populations. For example, a small tooth extracted from a polar bear skull allows scientists to estimate the animal's age, while marrow from a leg bone can be used to assess body condition and health.

We need your help. If you find a polar bear carcass or partial remains, please contact the FWS Marine Mammals Management Office in Anchorage at 1-800-362-5148. You will be asked to provide the following information about the animal, and, if possible, take photographs and collect the skull and femur (biggest front leg bone):

- Location where the carcass was found (GPS location, if possible)
- Estimated length, girth (circumference), and weight
- Sex and age class (cub of the year, yearling, sub-adult or adult)

#### **U.S. Fish & Wildlife Service**

## What to Do if You Find a Dead Polar Bear

- Body condition (see diagram on back)
- Presence of ear tags, collar, or other identifying features
- Possible cause of death (for example: open wounds, scars, broken bones)
- Estimated time of death (less than or more than 24 hours - see below)

It is especially valuable to biologists to quickly obtain samples from animals that are frozen or have died within 24 hours. If you find a polar bear that is frozen or has died within 24 hours, please call the FWS Marine Mammals Management office immediately. The FWS will arrange for samples to be shipped to Anchorage. The carcass is less than 24 hours old if:

- Carcass is intact and not scavenged
- Eyes are present and not wrinkled or shrunken
- No foul odor or dark brown/black fluid leaks from carcass
- Fur does not pull free in clumps when grasped
- No maggots or fly eggs are on or under the body

Thank you for your assistance. Your help in collecting this information is very much appreciated.



Scientists investigate a polar bear mother killed at her den site by an adult male polar bear.

U.S. Fish & Wildlife Service 1 800/344 WILD http://www.fws.gov

December 2009

For more information please contact: Craig Perham or Susanne Miller 1 800/362 5148 Craig\_Perham@fws.gov Susanne\_Miller@fws.gov U.S. Fish & Wildlife Service Marine Mammals Management Office 1011 East Tudor Road Anchorage, AK 99503

Visit the Marine Mammals home page: http://alaska.fws.gov/polarbear

#### Appendix 4. Kaktovik Visitor Information Pamphlet

# Arctic Refuge Visitors:

The Arctic Refuge is managed for all Americans by the U.S. Fish and Wildlife Service, a federal agency within the U.S. Department of the Interior.

Wildlife- and wilderness-oriented public uses at the Refuge include hiking, camping, river floating, wildlife viewing, photography, fishing purpose of preserving unique wildlife, wilderness and recreational values..." The Refuge was created in 1960 "For the

Please minimize your impacts on the Refuge by following the guidance provided in the Refuge's pamphlet "Strategies for Minimizing Your Impacts." Leave natural objects and artifacts where you find them unless you have a pre-approved collecting permit from the U.S. Fish and Wildlife Service. and hunting.

Refuge please visit http://arctic.fws.gov/ or call 800-362-4546. For more information about visiting Arctic









Mixed flock of waterfowl on Arctic Refuge coastal plain











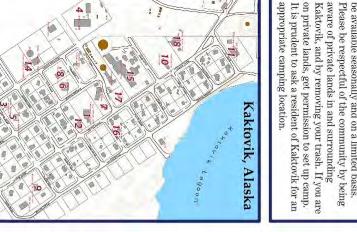
Artwork by Flora Rexford of Kaktovik





#### Appendix 4, continued

on private lands, get permission to set up camp. Please be respectful of the community by being public campgrounds available on Barter Island appropriate camping location It is prudent to ask a resident of Kaktovik for an be available seasonally and on a limited basis. rooms, meals and showers. Tent spots may Limited options exist for visitors to purchase



# City of Kaktovik Office and Community Center 1 Governmental Organizations:

There are no youth hostels, home stays or

Office hours 8:30-5 (closed for lunch

Kaktovik Inupiat Corporation (KIC)

Administrative Offices 2

Office hours 9-5 (closed for lunch)

Native Village of Kaktovik (NVK) 3

640-2042

North Slope Borough (NSB) Public Works 4

Office hours 8:30-5 (closed for lunch)

(Fairbanks office 1-800-362-4546)

Medical and Emergency Information:

NSB Police Department 7 640-6911 (non-emergency)

call 911 after hours (rings in Barrow)

call 911 after hours (rings in Barrow)

Assembly of God Church 9 Wednesday Service 7pm (All in English) Sunday Services 11am and 7pm

Places of Worship:

Presbyterian Church 10 Sunday Services 11am (English) and 7:30pm (Inupiaq)

Office hours 9-5 (closed for lunch)

U.S. Fish and Wildlife Service Residence 5

No permanent staff in Kaktovik

NSB Fire Department 6 640-6212 (non-emergency)

NSB Tom Gordon Health Clinic 8

Clinic hours 1-4 walk-ins Monday-Friday call 911 after hours (rings in Barrow)

U.S. Post Office 17 Mail drop: 24 hours Window hours: 8:30-4 (closed for lunch)

rental, flight services (air charters and Services: hotel rooms, meals, showers, equipment commercial airline agent)

Services available during summer season:

City of Kaktovik 1

Services: Clothing, local artwork

ERA Alaska / Frontier Flying Service 9

Services: Flight services (commercial) or 800-478-6779 for reservations

KIC Fuel Office 11

Services: fuel, machine parts, camping supplies

KIC Kikiktak Store 12

Services: General store, groceries, some clothing

KIC Marsh Creek Inn 13

Services: Hotel rooms, meals, showers, baths

NSB Kaktovik Mayor's Office & Planning Dept. 14

Services: public internet access (first priority to

NSB School District Kaveolook High School 15 Ilisagvik College students)

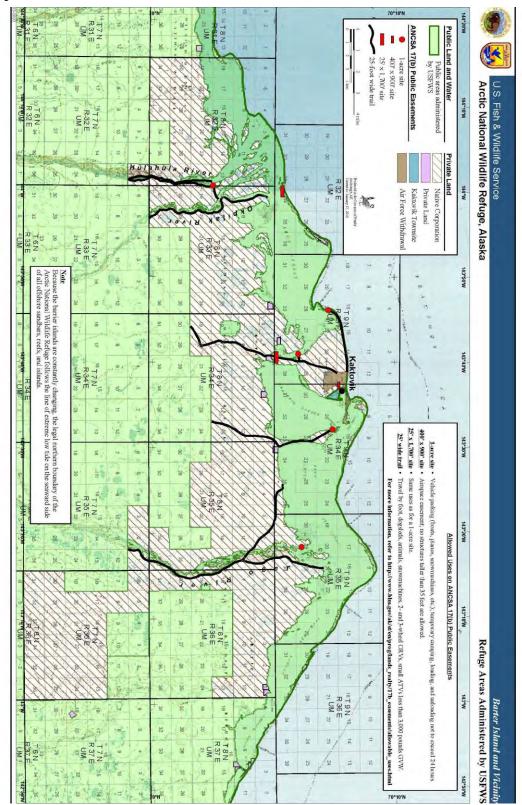
Sims Store 16 Services: open gym, library

Services: General store, groceries, some rentals,

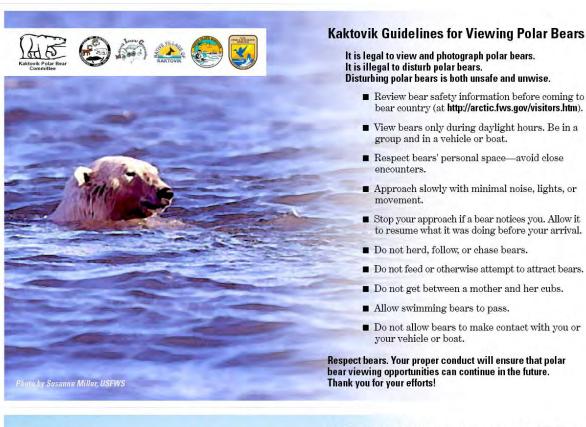
local artwork

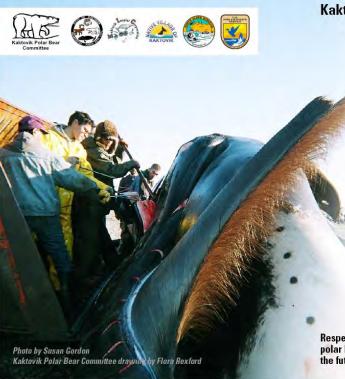
Waldo Arms Hotel 18

Appendix 5. Arctic National Wildlife Refuge, Alaska: Barter Island and Vicinity, Refuge Areas Administered by USFWS, U.S. Fish and Wildlife Service, Region 7 Division of Realty Map



**Appendix 6.** Kaktovik Guidelines for Community Visitors (reformatted for inclusion here)





#### **Kaktovik Guidelines for Community Visitors**

- Please be conscientious when visiting our community. We welcome safe and respectful visitors viewing polar bear and whaling activities.
- Obey barriers set to ensure safe viewing.
- To continue the community's traditional food-gathering activities, federal law permits community members to hunt bowhead whales. Please respect these traditional activities by staying out of the way during butchering.
- Take photos from a distance.
- When you view polar bears, we recommend that you use registered guides. This will ensure safe behaviors that obey federal polar bear protection laws.
- It's OK to purchase handcrafted items made from marine mammals. The Marine Mammal Protection Act allows only Native Alaskans to sell handcrafted items made of marine mammal parts. Except for these handcrafted items, it is illegal for non-Natives to possess, transport, or sell marine mammal products.

Respect our community. Your proper conduct will ensure that polar bear and whale viewing opportunities can continue in the future. Thank you for your efforts!

#### Appendix 6, continued

**About Polar Bears** 

Polar bears have an important place in the cultural traditions of Alaska Natives, who recognize the bears' amazing strength, hunting ability and stealth.

Residents and visitors have a unique opportunity to see polar bears in Kaktovik. These bears are part of the Southern Beaufort Sea population, estimated at 1,500 animals. This population uses an area extending more than 800 miles along the north coast of Alaska and Canada. Polar bears come to the coast surrounding Kaktovik, especially in fall, to rest, feed, wait for the ice to form, and sometimes den and give birth.

Polar bears evolved from brown bears and are the largest member of the bear family. Male polar bears measure 8-9 feet from nose to tail and generally weigh up to 1,320 pounds, but may reach up to 1,760 pounds. Females measure around 6-7 feet and are typically about half the size of males.

Polar bears are specially adapted to the arctic waters in which they live. Bears have white coloration for camouflage; water repellent guard hairs and dense underfur; black skin for absorbing warmth; small "suction cups" on the soles of their feet for traction on slippery ice; teeth specialized for a meat-eating rather than a meat-and-plant diet; and the ability to store large amounts of fat when food is available and then use it later when food is scarce. Polar bears primarily eat ringed seals but they also hunt bearded seals, walrus, and beluga whales, and will scavenge beached carcasses they find along the coast.

Polar bears generally live alone except when concentrating along the coast during the open water period, or when mating or rearing cubs. Pregnant females spend late October or November until late March or April in winter dens. Other polar bears do not usually den, and are active year-round. Polar bear dens are often located on land in areas where snow accumulates, such as along the coastal bluffs and river banks surrounding Kaktovik. Dens may also be excavated in pressure ridges on sea ice.

Pregnant bears give birth to 1-3 tiny, helpless and hairless cubs in mid-winter. Mother and cubs are protected within a den of ice and snow that provides relative warmth and stable temperatures, where the mother nurses and cares for her young until March or early April. Once the family emerges they move onto sea ice, where the cubs learn to hunt. Cubs stay with their mother for approximately  $2\frac{1}{2}$  years.

Denning is an important time for the developing polar bear cubs. Winter den disturbance can cause den abandonment and cub death. Viewing polar bears within winter denning habitat is not recommended.

A warming climate is causing the disappearance of arctic sea ice, leaving wide stretches of open water the bears must swim across when traveling between ice and land. It is not uncommon for bears to rest without moving for days after completing such long-distance swims. Stay away from such bears and let them rest undisturbed.

## Polar Bear Numbers on Barter Island

#### Daily Polar Bear Counts at Barter Island September 7-26, 2002-2009 Number of Polar Bears 60 50 Minimum 40 Maximum 30 20 10 2002 2003 2004 2005 2006 2007 2008

- Polar bear counts from 2002 to 2009 are variable. They don't show a clear trend at this time.
- Polar bears of all ages and both sexes use Barter island. This area may be especially important for nutritionally stressed bears.
- Polar bears typically arrive at Barter Island in August and remain until October when the ocean freezes. Count dates were established in 2002 to estimate the number of bears using subsistence-harvested whale remains.
- Continued monitoring is needed and is on-going.

## Why Polar Bears /isit Barter Island

- During fall, the highest density of polar bears along the north coast of Alaska and western Canada occur around Barter Island.
- The number of polar bears on shore seems to be closely correlated to the distance of ice from shore. Reductions in sea ice could result in increasing land use by polar bears.
- One reason polar bears are attracted to Barter Island is because of the subsistence whale carcasses here.
- Another reason polar bears are attracted here may be because the density of ringed seals, one of their preferred foods, is higher here than elsewhere along the coast. The ice freezes here first in the fall, providing a good platform from which they can hunt for the seals.

**Notes:**